

REMARKS

Claims 1-19 are pending. Claim 14 has been amended and claims 18 and 19 have been added by way of the present amendment. Reconsideration is respectfully requested.

In the outstanding Office Action, claim 14 was objected to due to informalities; claims 1-3 and 6-15 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kim et al. (U.S. Patent No. 6,683,340); claims 4 and 16 were rejected under U.S.C. § 103(a) as being unpatentable over Kim et al. in view of Ashjace et al. (U.S. Patent No. 6,852,208); and claims 5 and 17 were objected to as being dependent upon a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Allowable Subject Matter

First, Applicants wish to thank Examiner Vinh for the early indication of allowable subject matter. In particular, claims 5 and 17 were objected to as being dependent upon a rejected base claim, but were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. To that end, claims 5 and 17 have been rewritten in independent form as new claims 18 and 19, respectively. Therefore, it is respectfully submitted that claims 18 and 19 are in condition for allowance.

Claim Objections

In response to the objection to claim 14, the claim has been amended to correct the typographical error. The amendment raises no question of new matter.

Claim Rejections - 35 U.S.C. §102

Claims 1-3 and 6-13 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kim et al. Applicants respectfully traverse.

Kim et al. discloses a split-gate flash memory.¹ In particular, Kim et al. discloses a semiconductor substrate 200 with a structure (i.e., 202, 205, 209, 210) disposed thereon.²

¹ Kim et al. at ABSTRACT.

² *Id.* at FIG. 6E.

Further, Kim et al. discloses forming an oxidation film 213 (e.g., "a first material," as recited in claim 1) over the entire surface of the semiconductor substrate 200 and the structure 202, 205, 209, 210; and forming a conductive layer 214 (e.g., "a second material," as recited in claim 1) and a nitride layer 215 (i.e., a third material not recited in claim 1).³ Further, Kim et al. discloses the conductive layer 214 and the nitride layer 215 are etched through a CMP process.⁴

However, Kim et al. nowhere discloses, as recited in claim 1:

[a] method of planarizing, comprising:
 providing an article comprising a substrate and one or more structures disposed on the substrate;
 forming a first material over the article;
 forming a second material over the first material;
 removing at least a portion of the second material *using a polishing pad and a liquid* (emphasis added).

That is, as discussed above, Kim et al. discloses a "conductive layer 214 and the nitride layer 215 are *etched* through a CMP process" but nowhere explicitly discloses "using a polishing pad and a liquid," as recited in claim 1 (emphasis added).

In addition, Kim et al. discloses a conductive layer 214 and a nitride layer 215 that do not correspond to "a first material over the *article*" and "a second material over the first material," respectively, recited in claim 1. Thus, Kim et al. does not disclose either the "article" nor the overall structure recited in claim 1.

Therefore, it is respectfully submitted that Kim et al. does not disclose, anticipate or inherently teach the claimed invention and that claim 1, and claims dependent thereon, patentably distinguish thereover.

Claims 14-15 were rejected under 35 U.S.C. Section 102(e) as anticipated by Kim et al. Applicants respectfully traverse the rejection.

Kim et al., as discussed above, nowhere discloses, as recited in claim 14:

 providing an article comprising a substrate and one or more structures disposed on the substrate, the structures
 providing the article with a non-planar topography;
 forming a first material over the article;
 forming a second material over the first material, wherein
 the second material is harder than the first material;

³ *Id.* at FIG. 6F-6G, column 7, lines 55-64.

⁴ *Id.* at FIG. 6H, column 7, line 65 to column 8, line 5.

removing at least a portion of the second material *using a polishing pad and a liquid* (emphasis added).

That is, as discussed above, Kim et al. discloses a "conductive layer 214 and the nitride layer 215 are *etched through a CMP process*" but nowhere explicitly discloses "using a polishing pad and a liquid," as recited in claim 14 (emphasis added).

Therefore, it is respectfully submitted that Kim et al. does not disclose, anticipate or inherently teach the claimed invention and that claim 14, and claims dependent thereon, patentably distinguish thereover.

Claim Rejections - 35 U.S.C. §103

Claims 4 and 16 were rejected under U.S.C. § 103(a) as being unpatentable over Kim et al. in view of Ashjaee et al. Applicants respectfully traverse the rejection.

Claim 4 and claim 16 are ultimately dependent upon claim 1 and claim 14, respectively. As discussed above, Kim et al. does not disclose the limitations of claims 1 and 14. Therefore, at least for those reasons, Kim et al. also does not disclose the limitations of claims 4 and 16.

In addition, the outstanding Office Action acknowledges other deficiencies of Kim et al. regarding claims 4 and 16 and attempts to overcome these deficiencies with Ashjaee et al.⁵. However, Ashjaee et al. cannot overcome all of the deficiencies of Kim et al., as discussed below.

Ashjaee et al. discloses a method and apparatus for full surface electrotreating a wafer.⁶ In particular, Ashjaee et al. discloses a pad 8 is placed on an anode plate 9 across from the wafer surface 16.⁷

However, Ashjaee et al. nowhere discloses, as recited in claim 4:

[a] method of planarizing, comprising:
 providing an article comprising a substrate and one or more structures disposed on the substrate;
 forming a first material over the article;
 forming a second material over the first material;
 removing at least a portion of the second material *using a polishing pad and a liquid* (emphasis added).

⁵ Outstanding Office Action at page 5, paragraph 6, lines 3-6.

⁶ Ashjaee et al. at ABSTRACT.

⁷ *Id.* at column 3, lines 38-45.

In addition, Ashjaee et al., as discussed above, nowhere discloses, as recited in claim 16:

providing an article comprising a substrate and one or more structures disposed on the substrate, the structures providing the article with a non-planar topography;
forming a first material over the article;
forming a second material over the first material, wherein the second material is harder than the first material;
removing at least a portion of the second material *using a polishing pad and a liquid* (emphasis added).

That is, Ashjaee et al. nowhere explicitly discloses "using a polishing pad and a liquid," as recited in claim 1 (emphasis added).

Therefore, it is respectfully submitted that neither Kim et al. nor Ashjaee et al., whether taken alone or in combination, do not disclose, suggest or make obvious the claimed invention and that claims 4 and 16, and claims dependent thereon, patentably distinguish thereover.

Conclusion

In view of the above amendments and remarks, reconsideration and allowance of the pending claims are respectfully requested.

Applicants believe that the present application is in condition for allowance, and an early indication of the same is respectfully requested.

If the Examiner has any questions or requires clarification, the Examiner may contact the undersigned so that this Application may continue to be expeditiously advanced. In the event the Examiner believes an interview might serve to advance the prosecution of this application in any way, the undersigned is available at the telephone number noted below.

The Director is hereby authorized to charge any fees, or credit any overpayment, associated with this communication, including any extension fees, to Deposit Account No. 22-0185.

Respectfully submitted,

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